



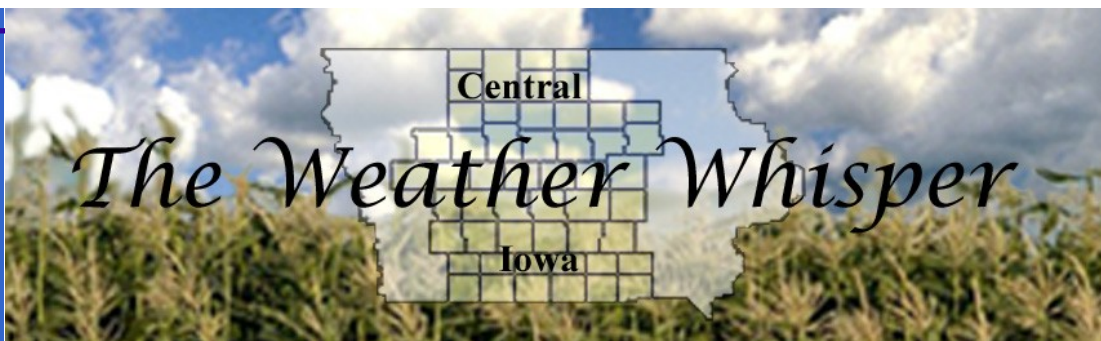
NATIONAL
WEATHER SERVICE
DES MOINES IA

- Severe Weather Awareness
- Flood Safety



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Volume 2, Issue 1

Spring 2008

Severe Weather Awareness Week In Iowa — April 7–12, 2008

The Iowa Homeland Security and Emergency Management and the National Weather Service have declared the week of April 7th through April 12th 2008 Severe Weather Awareness Week. Severe Weather Awareness Week is an annual event to remind Iowans that severe weather is part of being in Iowa and that understanding the risks and how to respond to them can save lives.

During Severe Weather Awareness Week, the National Weather Service will promote severe weather safety by issuing informative Public Information Statements. Daily topics will include flooding, severe thunderstorms, tornadoes, NOAA Weather All Hazards Radio, and family preparedness.

The highlight of the week will be the statewide tornado drill on Wednesday, April 9 2008. This will begin at 10:00 A.M. and conclude by 10:45 A.M. for all 99 Iowa counties. All five Iowa National Weather Service offices which serve Iowa will participate in the drill.

Severe Weather Awareness Week information plus links to national preparedness materials will be on the National Weather Service Des Moines web site at www.weather.gov/desmoines by early March 2008. Another excellent source of safety information is on the Be-ReadyIowa.org web site. (www.BeReadyIowa.org)



Lightning at the Ankeny, Iowa airport on August 7, 2007. Picture courtesy of BennaAerialPhotography.com

Flood Safety Awareness Week—March 17 - 21, 2008

Flooding is a coast to coast threat to the United States and its territories in all months of the year. National Flood Safety Awareness Week is intended to highlight some of the many ways floods can occur, the hazards associated with floods, and what you can do to save life and property. Each day during the week of National Flood Safety Awareness Week, a different subject on flood safety will be highlighted.



Gays Mills, WI: August 2007 taken by Marian Baker

Monday: Advanced Hydrologic Prediction System (AHPS)

Tuesday: Turn Around Don't Drown (TADD)

Wednesday: Floods, Droughts and Other Related Phenomena

Thursday: Flood Insurance

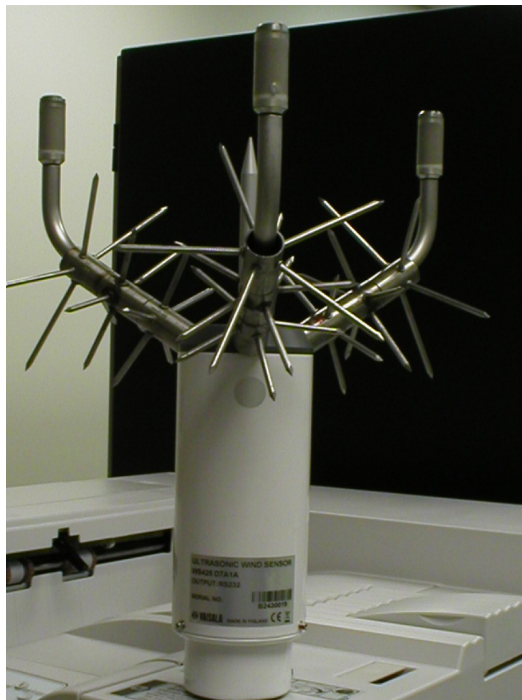
Friday: Flood Safety

More information on National Flood Safety Awareness Week can be found at:

<http://www.weather.gov/floodsafety/>

Birds and Ice Free Wind Sensor by Dave Reese, ESA

Since the new Ice Free Wind Sensor (IFWS) modification to the Automated Surface Observation System (ASOS) in the fall of 2007, many sites have been experiencing intermittent errors. These errors have been researched and found to be caused by birds landing on the probes. A bird sitting on any one of these probes can cause a wind path error because it blocks the wind path to one or more of the sensor probes. The National Weather Service has attempted to rectify this problem by designing a modification to the IFWS to keep birds from landing on the sensors. This bird abatement device is ongoing testing, and will not be released to the field until a study has been completed that ensures its effectiveness and also maintains the accuracy of the wind measurement. We have experienced a few minor problems from birds at some of our ASOS sites, but nothing significant. Hopefully this modification test will be successful and we will be able to implement the device at ASOS sites in central Iowa soon.



Fun Fact: On February 17th, 2008...a daily maximum snowfall of 5.7 inches was set at Des Moines. This broke the old record of 3.4 inches set in 1962.

New Product: Fire Weather Forecasts by Frank Boksa, General Forecaster

Beginning in mid-April the NWS forecast office in Johnston will begin issuing a seasonal Fire Weather Planning Forecast. The product header will be FWFDMX. The purpose of this product will be to give those state and local agencies that do prescribed burns another planning tool. The product will be in tabular format through 36 hours giving all the typical fire weather parameters. It will also provide a seven-day general forecast to help those planning burns out to 7 days. This product does not replace anything and should be used as an additional tool for planning your burns. Agencies will still be required to request a spot forecast under the established guidelines. The Fire Weather planning forecast will be issued daily, early in the morning, from mid April through mid November with an update at 4 pm, if needed. Questions regarding this new product should be directed to Frank Boksa. E-mail address: Frank.Boksa@noaa.gov



U.S. Fish & Wildlife Service

Fun Fact: As of February 26th, 2008 in Des Moines, IA...a total of 21.5 inches of snowfall had accumulated. This sets a record for the snowiest February on record in Des Moines. The previous record was 21.3 inches set back in 1962. A normal snowfall for the month of February is 8.2 inches. This ranks 9th on the all time list of snowiest months for Des Moines. The highest amount was 37.0 inches set in January of 1886.

Seasonal Snowfall Normals (July 1- June 30)

Location	Normal	2007-2008 Season Total (thru Jan)
Des Moines	36.2"	29.9"
Mason City	39.4"	18.5"
Waterloo	34.1"	30.7"
Ottumwa	26.9"	N/A

Climatological Data for November and December 2007 and January 2008

Location	Month	Average Temp	Departure	Highest	Lowest	Rain / Snow	Departure
Des Moines	Nov	38.9°	+1.0°	70° (19 th)	14° (23 th)	0.28" / 4.8"	-1.82" / +0.3"
	Dec	23.4°	-1.5°	43° (25 th)	7° (16 th , 17 th)	2.90" / 14.1"	+1.57" / +6.4"
	Jan	19.4°	-1.0°	54° (28 th)	-12° (24 th)	0.44" / 11.0"	-0.59" / +2.2"
Mason City	Nov	33.7°	+0.9°	66° (11 th)	7° (30 th)	0.09" / 0.5"	-1.87" / -4.4"
	Dec	16.6°	-2.4°	36° (25 th)	-1° (14 th , 15 th)	1.74" / 7.0"	+0.66" / -1.1"
	Jan	13.2°	-0.7°	44° (28 th)	-18° (24 th)	0.56" / 11.0"	-0.42" / +0.2"
Waterloo	Nov	35.7°	+0.6°	65° (11 th)	13° (29 th , 30 th)	0.16" / 1.1"	-1.94" / -3.7"
	Dec	18.9°	-2.7°	39° (25 th)	0° (14 th)	1.92" / 15.2"	+0.81" / +7.7"
	Jan	14.5°	-1.6°	44° (28 th)	-29° (24 th)	0.87" / 14.4"	+0.03" / +6.2"
Ottumwa	Nov	39.3°	-0.1°	73° (19 th)	15° (23 rd)	0.31" / 2.2"	-2.11" / +0.2"
	Dec	23.6°	-3.0°	45° (2 nd)	2° (17 th)	2.97" / n/a	+1.65" / n/a
	Jan	21.1°	-0.9°	62° (7 th)	-11° (20 th)	0.39" / n/a	-0.61" / n/a

Normal High/Low Temperatures

Location	Mar 1	Apr 1	May 1	Jun 1
Des Moines	41 / 23	55 / 35	67 / 46	78 / 57
Mason City	34 / 18	50 / 30	65 / 42	76 / 53
Waterloo	38 / 19	53 / 31	66 / 42	78 / 54
Ottumwa	42 / 25	56 / 36	67 / 48	78 / 59

Fun Fact: There were 15 consecutive days when the maximum temperature was below 32 degrees Fahrenheit in Des Moines. This occurred from January 11th to the 25th, 2008. During that stretch in January...the coldest temperature was 12 below zero on the 24th while the coldest maximum temperature was 4 degrees Fahrenheit which occurred on the 19th.

National Weather Service to Host Open House

The Des Moines NOAA / National Weather Service office will be presenting a public open house **Saturday March 8 from 10 am to 3 pm**. Everyone is invited to attend and no reservations are required. Children are welcome. Just arrive ready to learn and ask questions! The open house will include guided tours of our operations and various topics including the following...

- Severe weather and warnings
- Hydrology and data acquisition
- Public and aviation forecasting and dissemination
- Electronics and observation equipment.

Our office is located at 9607 NW Beaver Drive in Johnston, along the east side of the road, or about a quarter mile north of the radar tower. Detailed maps and directions are provided on our homepage at www.weather.gov/desmoines. Guided tours will begin about every 10 to 15 minutes, and are expected to last approximately 50 minutes, but feel free to stay longer if you wish. Parking is limited, so car pooling is encouraged. Parking along the shoulder on Beaver Dr. is prohibited. Drinks and snacks will also be provided. If you have any questions, please call (515) 270-2614. We hope to see you there.

Spring/Summer 2008 Outlook by Miles Schumacher, Senior Meteorologist

The fall and winter seasons were dominated by a moderate to strong La Niña. Although it is more typical to see warmer than normal temperatures during this type of event, it is not always true as we saw this winter. Another factor typical of La Niña is for an abnormally strong trough of low pressure with an active storm track from the southwest U.S. through the central States. This we did indeed see, and resulted in the heavy snowfall of this winter.

Looking into the upcoming spring season, it appears the current La Niña will persist at least through the next several months. Meteorologically, spring is typically defined as the months of March, April, and May. There are some indications that weakening will take place during the Boreal spring, however atmospheric changes will be slow to occur. Snow cover in the northern hemisphere is greater than normal. The extensive snow cover may contribute to a delay in the onset of warmer spring weather. A statistical analysis of similar years to this year suggests that temperatures in March will end up colder than normal (Figure 2). It is also likely that the pattern of above normal snowfall will continue into March with an above average chance for significant rain or snow storms. For the spring as a whole, indications are that the cool pattern will dominate into April as well, but the trend will be for temperatures to return to normal or even a little above normal by the end of the spring season, especially from southern Iowa on south. Figure 3 shows a map of expected temperature departure from normal for the spring season.

Looking at similar years to the season just past, and given the state of La Niña, there is a tendency for the spring season to be more active than normal. Precipitation is likely to trend above normal for the month of March (Figure 4) as storm systems continue to move north-east out of the southwest U.S.

It appears the wet pattern will persist through much of the spring, with a tendency noted in the statistics for May to be quite wet. In fact, the odds lean 2:1 in favor of an active and wet May. Needless to say, with the active pattern expected, it should be no surprise that the spring season is expected to be wetter than normal (Figure 5).

The question that comes to mind, of course, given the extensive snow cover and forecast for above normal precipitation this spring is how serious of a flood threat this will be. That is specifically dealt with in another section of this newsletter. The short answer is, it all depends. If we warm quickly and receive rain instead of snow, water concerns are very real. A late and slow spring would paint a very different picture.

Attention over the next few months will be on the evolution of the current La Niña event. If it remains at least moderate in strength, climatology would suggest a tendency for the summer to end up drier than normal by perhaps 2 to 3 inches less than normal over the course of the months of June, July, and August. Temperatures this summer should be fairly close to normal. Should the La

BMRC/NMC Global SST Anomaly
Week Ending 10 Feb 2008

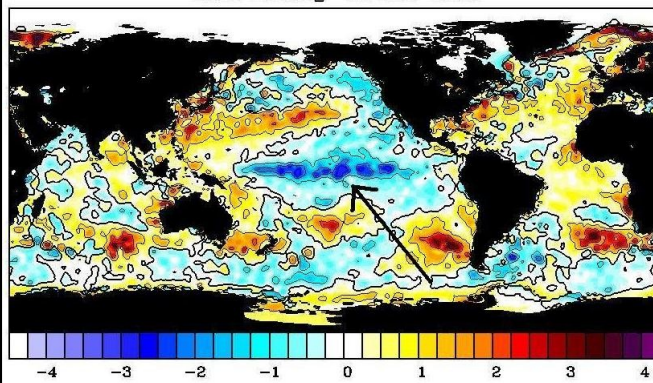


Figure 1. Map centered on the Pacific Ocean, showing the cold water along the equator of a mature La Niña event.

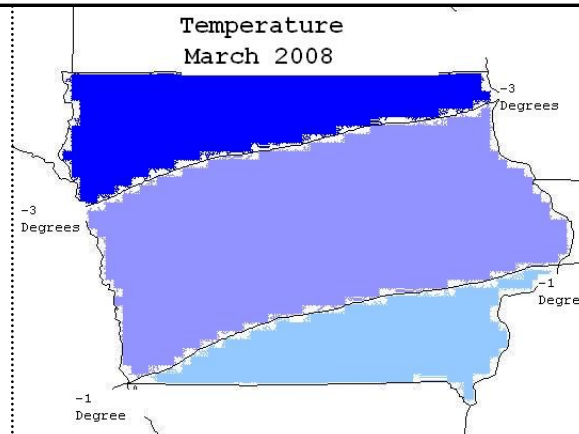


Figure 2. Iowa temperature outlook (departure from normal) for the month of March.

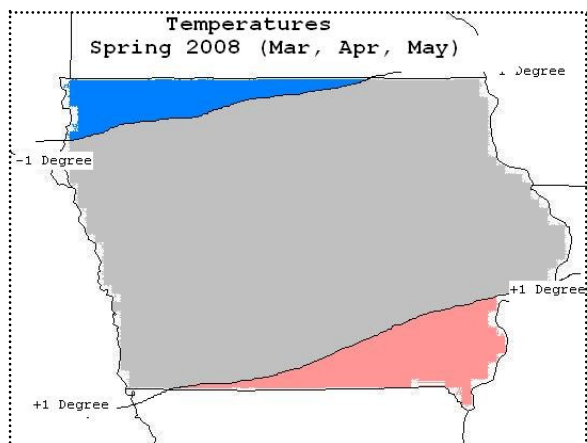


Figure 3. Iowa temperature outlook (departure from normal) for the spring season.

(Continued on page 5)

Spring/Summer 2008 Outlook

(Continued from page 4)

Niña break down, or even move the other way, toward El Niño, we would likely continue receiving normal or greater rainfall through the summer. Stay tuned to the tropical Pacific!

Figure 4. Iowa precipitation outlook (departure from normal) for the month of March.

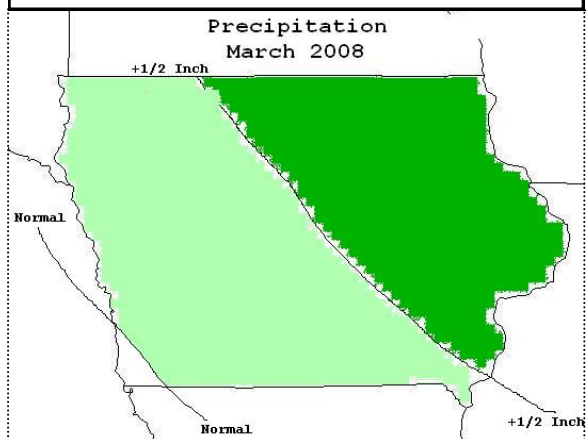
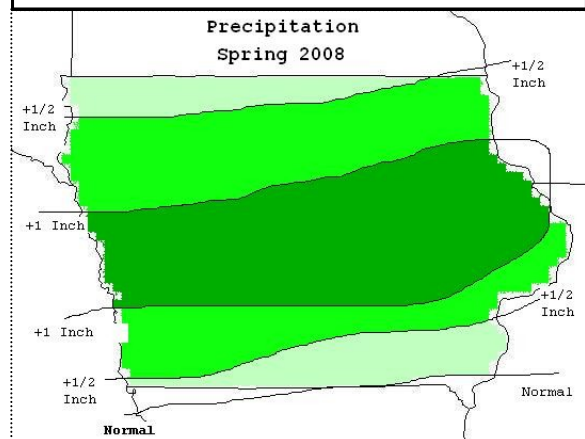


Figure 5. Iowa precipitation outlook (departure from normal) for the spring season.



Spring 2008 Flood Outlook

Snow depths across Iowa vary from 2-4 inches in the southwest, to around a foot in the northeast. If you melt that snow down you will find water amounts from less than one-tenth of an inch in the west to over 2 inches in the northeast. What this means for Iowa rivers depends on our spring weather. If we gradually melt our snow in March, river levels will increase, and there may be some minor flooding of roads and agricultural land in parts of north central and eastern Iowa. The rest of the state will see bank full conditions and only minor lowland overflows. If we melt our snowpack rapidly, or have a significant rain event on top of the current snowpack, more widespread flooding will be possible. The project lakes across Iowa are ready to hold the spring runoff, which will help spread the water out for many locations along the Iowa, Des Moines, and Chariton Rivers. For the latest river conditions, please visit our river information page at:

<http://www.crh.noaa.gov/ahps2/index.php?wfo=dmx>

December 11th, 2007 Ice Storm Pictures



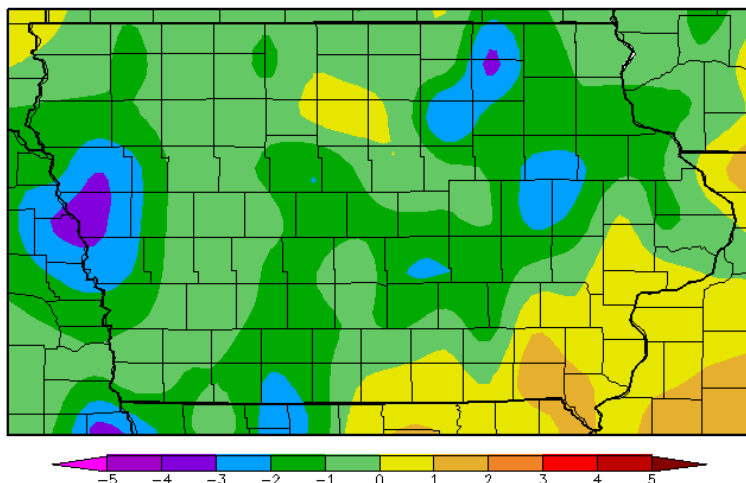
Winterset, IA: photo taken by Steve Teachout



National Weather Service Office in Johnston, IA: photo taken by Mindy Albrecht

November 2007—January 2008 Climate Summary

Departure from Normal Temperature (F)
11/1/2007 – 1/31/2008



Generated 2/11/2008 at HPRCC using provisional data.

NOAA Regional Climate Centers

Temperatures:

For the first time in several years, the average temperature from November to January was below normal for much of the state. The only exception was across the southeast where readings were slightly above normal. Persistent cloudiness was common for much of the period from December into January as several storms passed across the state.

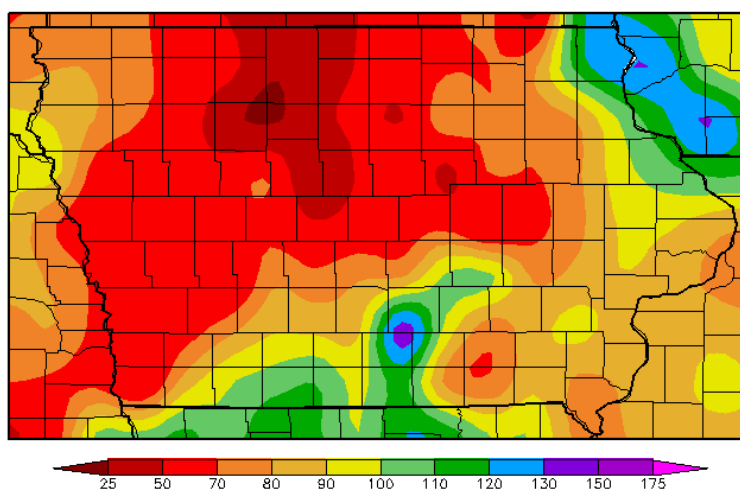
Fun Fact: In Des Moines, IA...beginning December 7th, 2007...there were 32 consecutive days when the snow depth on the ground was 1 inch or greater. There was a two week span within that stretch in December where the snow depth on the ground was 3 inches or greater in Des Moines.

Precipitation:

November was a very dry month for much of the state with only 0.19 of an inch average statewide. December and January saw a large increase in storms affecting the state, but liquid equivalencies with these storms remained relatively low. For the 3 month period, precipitation was below normal for much of Iowa with less than 50 percent of normal precipitation in portions of North Central Iowa. The exceptions were in South Central Iowa and portions of the far north east where precipitation was above normal.

Fun Fact: In Waterloo, IA...on January 24, 2008, a record daily minimum temperature of 29 degrees Fahrenheit below zero occurred. This broke the old record of 23 below...set in 1904.

Percent of Normal Precipitation (%)
11/1/2007 – 1/31/2008



Generated 2/11/2008 at HPRCC using provisional data.

NOAA Regional Climate Centers

The winter of 2007-08 turned out to be a colder winter than normal and also colder than was expected as we began the season last fall. Although the winter began dry in December in many areas, the snow season picked up pace as we moved into January and February. It is interesting to note, that although the winter was colder than normal and may have seemed harsher than it actually was, the temperatures were not extremely cold through most of the winter. However, the winter was consistently colder than normal. Statewide average temperatures look on track to be in the top one third of the coldest winters in Iowa. In comparison, the winter of 2000-01 was colder than this year. It appears from preliminary data that all three of the winter months (Dec, Jan, and Feb) were below normal. Generally speaking, even during the coldest winters in Iowa, one of the winter months averages warmer than normal. The big story this winter was the snowfall, running twice the normal amount in many areas. Parts of the southeast half of Iowa received 2 to 3 feet of snow in February! Statewide snowfall through the later part of February was near the top one third of snowiest winters on record as well. Both of these values are within one standard deviation of normal.

Month	Temperature	Departure from Normal	Rainfall	Departure from Normal	Temperature Ranking	Precipitation Ranking
November	37.1	+0.9	0.19	-1.59	62nd warmest	3rd driest
December	20.3	-2.8	2.52	+1.25	38th coolest	2nd wettest
January	16.9	-1.4	0.68	-0.27	47th coolest	41st driest

New StormReady® Communities Recognized by Brad Small, Senior Forecaster

Marshall and Carroll Counties, along with Drake University, were all recognized by the Des Moines National Weather Service as StormReady® communities in December 2007. In February 2008, Grinnell College also received StormReady® recognition. This nationwide community preparedness program uses a grassroots approach to help communities develop plans to handle severe weather and flooding threats. The program is voluntary and provides communities and universities with clear-cut advice from a partnership between local National Weather Service forecast offices and state and local emergency management officials. StormReady® started in 1999 with seven communities in the Tulsa, OK area and has now grown to more than 1300 across the entire country.

To be recognized as StormReady®, a community, university or college must:

- Establish a 24-hour warning point and emergency operations center;
- Have more than one way to receive severe weather forecasts and warnings and to alert the public or students;
- Create a system that monitors local weather conditions
- Promote the importance of public readiness through community seminars;

Develop a formal hazardous weather plan, which includes training severe weather spotters and conducting other preparedness talks

Cities, counties, colleges and universities are all eligible to become StormReady® communities. Smaller entities such as schools and businesses with populations greater than 50 people are eligible to become StormReady® supporters. Severe weather season will be here soon, so now is the time to increase your severe weather awareness and preparedness. Following the StormReady® guidelines is a great way to fill out your severe weather checklist.



For more information on the StormReady® program please visit <http://www.stormready.noaa.gov> or contact StormReady® Program Leader Brad Small at (515) 270-4501 or bradley.small@noaa.gov.

Employee Spotlight: Senior Service Hydrologist: Marian Baker

Education Background: B.S. in Atmospheric Science, Creighton University, Omaha (1992).

Marian Baker has been the Senior Service Hydrologist at the National Weather Service (NWS) Forecast Office in Des Moines since 2004, she also supports the hydrology program at the NWS Forecast Office in La Crosse, Wisconsin. Previous to that, she spent 2 years at the National Weather Service Training Center in Kansas City, MO as a Master Instructor, 4 years in Wichita, Kansas as a Service Hydrologist, and 6 years at the Forecast Office in Omaha, Nebraska as a Meteorologist. Ms. Baker's main expertise is in hydrologic preparedness training and working with local managers in flood mitigation. She has developed a course on AWIPS software for flood forecasting and preparedness, and has written a memorandum of agreement for a local flood warning system. Ms. Baker serves as the primary ALERT system focal point for the NWS Central Region, and is an Executive Board Member of the National Hydrologic Warning Council, and a founding member of the Midwest ALERT User's Group. Marian is also a member of the Association of State Floodplain Managers.

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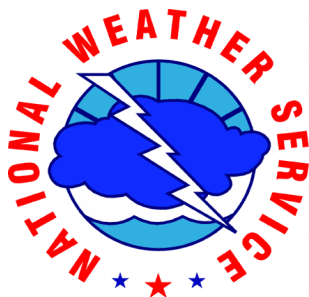
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Central Iowa
The Weather Whisper

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Upcoming Events for the National Weather Service

- **March 8th: 10:00 am to 3:00 pm...National Weather Service Public Open House**

- March 17th to 21st : Flood Safety Awareness Week

- April 7th to 12th: Severe Weather Awareness Week

- **April 21st and 22nd: Emergency Management Workshop**

- February 26th through April 23rd: 2008 Spotter Training Schedule (See www.weather.gov/desmoines for specific time and date for your area)

- StormReady® Dedication Dates:

- Drake University: March 5th
- Carroll County: March 20th

